

IN THE CLAIMS:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

providing a semiconductor substrate in which a gate electrode pattern is formed; and

forming an interlayer insulating film including a multi-layered oxide film by performing multiple simultaneous deposition-and-etch processes in order to bury the gate electrode pattern,

wherein the interlayer insulating film has a surface refractive index of 1.44 to 1.48.

2. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the multiple simultaneous deposition-and-etch process is carried out by performing a depositing and etching process for a HDP oxide film simultaneously.

3. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein a deposition-and-etch rate of the oxide film, which is to be deposited and etched, is in the range of 1 to 25, when the multiple simultaneous deposition-and-etch process is carried out.

4. (Canceled)

5. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the etch process is carried out by using a plasma sputtering.

6. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

providing a semiconductor substrate in which a gate electrode pattern is formed;

forming a first HDP oxide film over the entire structure by performing a first deposition and etch process simultaneously; and

forming a second HDP oxide film over the entire structure by performing a second deposition and etch process simultaneously,

wherein the second HDP oxide film has a surface refractive index of 1.44 to 1.48.

7. (Original) The method of manufacturing a semiconductor device according to claim 6, wherein the etch process is carried out by using a plasma sputtering.

8. (Original) The method of manufacturing a semiconductor device according to claim 6, wherein a deposition-and-etch rate of the first HDP oxide film is in the range of 3 to 25.

9. (Original) The method of manufacturing a semiconductor device according to claim 6, wherein a deposition-and-etch rate of the second HDP oxide film is in the range of 1 to 3.

10. (Canceled)